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August 29, 2008

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

<i>In re</i> application of:	)	
	)	Group Art Unit: 2625
Yoshifumi ARAI et al.	)	
	)	Examiner: J. Washington
Application No. 10/687,574	)	
	)	Attorney Docket: YOKOP006
Filed: October 15, 2003	)	
	)	Date: August 27, 2008
For: DETERMINING METHOD FOR	)	
LATTICE POINT FOR	)	Confirmation No. 7751
CORRESPONDENCE DEFINITION	)	
DATA CREATION AND IMAGE	)	
PROCESSOR	)	
	)	

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**AMENDMENT UNDER 37 C.F.R. § 1.312**

Box: ISSUE FEE  
Commissioner for Patents  
Post Office Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

Applicants submit this paper in response to the Notice of Allowance dated June 9, 2008. Pursuant to 37 C.F.R. § 1.312, please amend this application as follows:

The **Amendments to the Claims** made herein are reflected in the **Listing of Claims**, which begins on page 2 of this paper.

Applicants' **Remarks** begin on page 5 of this paper.

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

**Listing of Claims:**

**Claims 1-9 (Canceled).**

**Claim 10 (Currently Amended):** A lattice point determining method for correspondence definition data creation whereby a plurality of lattice points which are referred to when correspondence definition data which defines correspondence between the ink quantities of inks in various colors used in a printing device and the color component values of various colors used in another image device is created are determined, the method comprising:

~~a step of~~ defining both an ink quantity lattice point smoothness evaluation function ~~for evaluating~~ which evaluates the smoothness of disposition of ink quantity lattice points in an ink quantity space whose components are said color ink quantities of inks in various colors and a lower-dimensional color lattice point smoothness evaluation function ~~for evaluating~~ which evaluates the smoothness of the disposition of lower-dimensional color lattice points in a lower-dimensional color space defined by a smaller number of color components than the number of these inks;

~~a step of~~ separately optimizing the ink quantity lattice points and the lower-dimensional color lattice points by separately enhancing the evaluations of said ink quantity lattice point smoothness evaluation function and said lower-dimensional color lattice point smoothness evaluation function;

~~a step of~~ maintaining either of the ink quantity lattice points and the lower-dimensional color lattice points at optimized lattice points and readjusting the other optimized lattice points; and

~~a step of~~ imposing limitation on ink quantity caused to adhere to a printing medium as a binding condition when a plurality of said lattice points are determined by said ~~step of~~ maintaining and readjusting, and carrying out said readjustment.

**Claim 11 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 10, wherein:

said readjustment is made by minimizing a first movement evaluation function containing a function whose value is increased with increase in the distance between the lattice points after readjustment and said other optimized lattice points.

**Claim 12 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 10, wherein:

said limitation on ink quantity is limitation on the maximum quantity of ink adhering to a specific printing area.

**Claim 13 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 12, wherein:

said maximum quantity of ink adhering is calculated by adding up the product of a weighting factor whose value is “0” or “1” defined for each ink quantity component value and each component value of said ink quantity lattice points.

**Claim 14 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 10, wherein:

said limitation on ink quantity is limitation on the quantity of a specific color ink consumed at a specific gradation value.

**Claim 15 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 14, wherein:

said limitation on the quantity of a specific color ink consumed is defined by a condition that the product of a weighting factor whose value is “0” or “1” defined for each ink quantity component value and each component value of said ink quantity lattice points is “0.”

**Claim 16 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 11, wherein:

if there is not a solution which minimizes said first movement evaluation function when the positions of said either optimized lattice points in said readjustment, it is permitted to fluctuate the positions of said either optimized lattice points and said readjustment is made by minimizing a second movement evaluation function containing a function whose value is increased with increase in the distance between the lattice points after readjustment and said other optimized lattice points and further increased with increase in the moving distance of said either optimized lattice points.

**Claim 17 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 16, wherein:

in said second movement evaluation function, the unit fluctuation of said either optimized lattice points more greatly contributes to increase in the value of the second movement evaluation function than the unit fluctuation of said other optimized lattice points.

**Claim 18 (Original):** The lattice point determining method for correspondence definition data creation, according to Claim 16, wherein:

in said second movement evaluation function, the unit fluctuation of components having a small absolute value of said either optimized lattice points more greatly contributes to increase in the value of the second movement evaluation function than the unit fluctuation of components having a large absolute value in comparison.

**Claims 19-24 (Canceled).**

**REMARKS**

Claims 10-18 are pending in this application.

**Proposed Amendments**

Applicants have amended claim 10 to delete the language “a step of” and “step of” from the claim. In addition, Applicants have changed the phrase “for evaluating” to “which evaluates.”

The foregoing changes merely correct formal matters in claim 10 and do not change the scope thereof. As this paper is being submitted before payment of the issue fee, Applicants submit that the amendments to claim 10 comply with the provisions of 37 C.F.R. § 1.312 and should be entered.

**Conclusion**

In view of the foregoing, Applicants respectfully request entry of this paper. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at **(408) 749-6902**. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. YOKOP006).

Respectfully submitted,  
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